

Listing of the Claims

1. -23. Canceled.
24. (Currently amended) A vector containing the DNA sequence of an isolated DNA of claim 53.
25. (Currently amended) A transformant containing the DNA sequence of an isolated DNA claim 53 which is a plant cell or plant tissue of a Brassica plant or a transformed Brassica plant.
26. (Previously presented) The transformant of claim 25 which is a transformed Brassica plant.
27. Canceled
28. (Currently amended) A transformant having a cytoplasmic male sterile gene wherein the DNA sequence of an isolated DNA of claim 53 is introduced with an induction type promoter into a cell of the transformant wherein the promoter is positioned with respect to the isolated DNA sequence to enable transcription thereof in the transformant, so that the transformant can regulate expression of the cytoplasmic male sterile gene, wherein the transformant is a cell or tissue of a Brassica plant or a transformed Brassica plant.
29. (Currently amended) A method for maintaining a cytoplasmic male sterile Brassica line by using crossing said line with the transformant of claim 28.
- 30.-31. Canceled

32. (Currently amended) A plant-transforming vector which comprises a promoter DNA having an ability of transcribing an mRNA at least in an anther and the ~~DNA sequence of an~~ isolated DNA of claim 53, wherein the promoter is positioned with respect to the isolated DNA sequence to enable transcription thereof.
33. Canceled
34. (Previously presented) A transformed Brassica plant having the vector of claim 32.
- 35.-36. Canceled
37. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root, which is obtained from the transformant of claim 25 and which comprises ~~the DNA sequence of~~ said isolated DNA.
38. (Previously presented) A transformant of claim 25 which is a *Brassica napus* plant, wherein a seed which is obtained from the transformant has a glucosinolate content of 30 micromole/g seed or less.
39. (Currently amended) A seed which is obtained from the transformant of the *Brassica napus* plant of claim 38 and which comprises ~~the DNA sequence of~~ said isolated DNA.
40. (Currently amended) A hybrid plant seed of a Brassica plant having fertility restoration ability, produced by crossing a mother, which is a cytoplasmic male sterile line Brassica plant, with a pollen parent, which is a fertility restoring line Brassica plant, which is a transformed plant of claim 26 comprising a DNA sequence encoding the protein having the amino acid sequence of SEQ ID NO:3; and wherein the seed comprises a DNA

sequence encoding the protein having the amino acid sequence of SEQ ID NO:3.

41. (Previously presented) The hybrid plant seed according to claim 40, wherein the cytoplasmic male sterile line plant of said mother is a cytoplasmic male sterile hybrid line derived from Ogura or Kosena radish.

42. Canceled

43. (Previously presented) The hybrid plant seed of a Brassica plant of claim 41, wherein the Brassica plant belongs to the species *Brassica napus*.

44. (Previously presented) The hybrid plant seed according to claim 43, wherein the glucosinolate content in the seed is 30 micromole/g seed or less.

45.-46. Canceled

47. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete, or root, each comprising a DNA sequence encoding the protein having the amino acid sequence of SEQ ID NO:3 which is obtained by planting and growing the hybrid plant seed of claim 40.

48.-52. Canceled

53. (Previously presented) The isolated DNA of claim 59 encoding the protein having the amino acid sequence of SEQ ID NO:3.

54. (Previously presented) The isolated DNA of claim 53 having the nucleotide sequence of SEQ ID NO:1.

55.-58. Canceled

59. (Currently amended) An isolated DNA which encodes a protein involved in restoration of a cytoplasmic male sterile individual to fertility selected from the group consisting of:
- (1) an isolated DNA which encodes a protein having the amino acid sequence of SEQ ID NO: 3;
- (2) an isolated DNA which encodes a protein having an amino acid sequence that is 92% or more homologous to the amino acid sequence of SEQ ID NO:3; and
- (3) ~~an isolated DNA which encodes a protein having an amino acid sequence wherein 1 to 20 amino acids are deleted, added and/or substituted in the amino acid sequence of SEQ ID NO:3;~~
- (4) ~~(3)~~ an isolated DNA having 95% or higher homology to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3; and
- (5) ~~an isolated DNA which hybridizes to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3 under stringent hybridization conditions where hybridization is performed at 65 °C in the presence of 0.7-1.0 M NaCl followed by washing using 0.1 to 2 X SSC solution at 65 °C.~~
60. (Previously presented) An isolated DNA of claim 59 selected from the group consisting of:
- (1) an isolated DNA which encodes a protein having the amino acid sequence of SEQ ID NO: 3; and

- (2) an isolated DNA which encodes a protein having an amino acid sequence that is 92% or more homologous to the amino acid sequence of SEQ ID NO:3.
61. (Currently amended) The isolated DNA of claim 59 selected from the group consisting of:
- (1) an isolated DNA which encodes a protein having an amino acid sequence wherein 1 to 20 amino acids are deleted, added and/or substituted in the amino acid sequences of SEQ ID NO:3; and
- (2) an isolated DNA having 95% or higher homology to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3.
62. (Previously presented) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence that is 92% or more homologous to the amino acid sequence of SEQ ID NO:3.
63. (Previously presented) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence which has 95% or higher homology to the amino acid sequence of SEQ ID NO:3.
64. (Previously presented) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence which has 97% or higher homology to the amino acid sequence of SEQ ID NO:3.
- 65.-69. Canceled
70. (New) The isolated DNA of claim 59 having 95% or higher homology to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3.

71.-72 Canceled

73. (Currently amended) A vector containing the DNA sequence of an isolated DNA of claim 59.
74. (Previously presented) A transformant containing the vector of claim 73, which is a plant cell, plant tissue or plant of the genus *Brassica*.
75. (Currently amended) A transformant comprising the DNA sequence of an isolated DNA of claim 59, which is a plant cell, plant tissue or plant of the genus *Brassica*.
76. (Previously presented) The transformant of claim 75 which is a transformed *Brassica* plant.
77. (Previously presented) The transformant of claim 76 which is a *Brassica napus* plant.
78. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root, each of which is obtained from the transformant of claim 76 and each of which comprises the DNA sequence of said isolated DNA.
79. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root, each of which is obtained from the transformant of claim 77 and each of which comprises the DNA sequence of said isolated DNA.
80. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root of a *Brassica* plant, each of which comprises the DNA sequence of an isolated DNA of claim 59.

81. (Previously presented) The seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root of a Brassica plant of claim 80 wherein the Brassica plant is a *Brassica napus* plant.
82. (Currently amended) A transformant having a cytoplasmic male sterile gene wherein the DNA sequence of an isolated DNA of claim 59 is introduced with an induction type promoter into a cell of the transformant, wherein the promoter is positioned with respect to the isolated DNA to enable transcription thereof in a transformant so that the transformant can regulate expression of the cytoplasmic male sterile gene, wherein the transformant is a plant cell, plant tissue or plant of the genus Brassica.
83. (Currently amended) The transformant of claim 84 claim 82 which is a plant cell, plant tissue or plant of the species *Brassica napus*.
84. (Currently amended) A method for maintaining a cytoplasmic male sterile Brassica line by using crossing said line with the transformant of claim 82.
85. (Currently amended) A plant-transforming vector which comprises the DNA sequence of an isolated DNA of claim 59 and a promoter DNA having the ability to transcribe an mRNA at least in an anther wherein the promoter is positioned with respect to the isolated DNA sequence to enable transcription thereof.
86. (Previously presented) A transformed Brassica plant having the plant-transforming vector of claim 85.
87. (Previously presented) A transformed *Brassica napus* plant having the plant-transforming vector of claim 85.

88. (Previously presented) A transformed plant of the species *Brassica napus* containing the plant-transforming vector of claim 85 wherein seed which is obtained from the transformed plant has a glucosinolate content of 30 micromole/g seed or less.
89. (Previously presented) The transformed *Brassica napus* plant of claim 88 wherein the glucosinolate content of the seed is 12 micromole/g seed or less.
90. (Currently amended) A seed which is obtained from the transformed plant of the species *Brassica napus* of claim 88 and which comprises the DNA sequence of said isolated DNA of the transformed plant.
91. (Currently amended) A transformant or transformed plant comprising (1) the DNA sequence of an isolated DNA of claim 59, (2) a vector containing the DNA sequence of said isolated DNA, or (3) a plant-transforming vector containing the DNA sequence of said isolated DNA and a promoter DNA having the ability to transcribe an mRNA at least in an anther, wherein the promoter is positioned with respect to said isolated DNA to enable transcription thereof; wherein the transformant or transformed plant is homozygous for a gene encoding the protein involving in restoration of a cytoplasmic male sterile plant to fertility encoded by the DNA sequence of said isolated DNA; and wherein the transformant is a cell or tissue of a *Brassica* plant and the transformed plant is a *Brassica* plant.
92. (Previously presented) The transformant or transformed plant of claim 91 wherein the transformant is a cell or tissue of a *Brassica napus* plant and the transformed plant is a transformed *Brassica napus* plant.
93. (Currently amended) A transformant or transformed plant comprising (1) the DNA sequence of an isolated DNA of claim 59, (2) a vector containing the

DNA sequence of said isolated DNA, or (3) a plant-transforming vector containing the DNA sequence of said isolated DNA and a promoter DNA having the ability to transcribe an mRNA at least in an anther, wherein the promoter is positioned with respect to said isolated DNA to enable transcription thereof; wherein, when the transformant or the transformed plant is regenerated, the regenerated individual can restore cytoplasmic male sterility to fertility; and wherein the transformant is a cell or tissue of a *Brassica* plant and the transformed plant is a *Brassica* plant.

94. (Previously presented) The transformant or transformed plant of claim 93 wherein the transformant is a cell or tissue of a *Brassica napus* plant and the transformed plant is a transformed *Brassica napus* plant.
95. (Currently amended) A hybrid plant seed of a *Brassica* plant having fertility restoration ability which comprises ~~a-DNA sequence of an~~ the isolated DNA of claim 59.
96. (Currently amended) A hybrid plant seed of a *Brassica napus* plant having fertility restoration ability which comprises ~~a-DNA sequence of an~~ the isolated DNA of claim 59.
97. (Previously presented) A bacterial host cell containing the vector of claim 73.
98. (Previously presented) The bacterial host cell of claim 97 which is a bacterium belonging to the genus *Escherichia* or *Agrobacterium*.
99. (Previously presented) A transformant comprising a vector of claim 24 which is a cell or tissue of a *Brassica* plant or is a *Brassica* plant.

100. (Previously presented) The transformant of claim 99 which is a cell or tissue of a *Brassica napus* plant or is a *Brassica napus* plant.
101. (Previously presented) The isolated DNA of claim 53 having the nucleotide sequence of SEQ ID NO. 2.